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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/753,874	01/09/2004	Hans Joachim Halamoda	7863-80940	6117
42798 7590 07/08/2009 FITCH, EVEN, TABIN & FLANNERY P. O. BOX 18415 WASHINGTON, DC 20036				
EXAMINER NGUYEN, PHONG H				
ART UNIT 3724		PAPER NUMBER		
MAIL DATE 07/08/2009		DELIVERY MODE PAPER		

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**BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES**

Application Number: 10/753,874
Filing Date: January 09, 2004
Appellant(s): HALAMODA ET AL.

Mr. Norman Kunitz
For Appellant

EXAMINER'S ANSWER

This is in response to the appeal brief filed 12/01/2008 appealing from the Office action mailed on 04/30/2008.

(1) Real Party in Interest

A statement identifying by name the real party in interest is contained in the brief.

(2) Related Appeals and Interferences

The examiner is not aware of any related appeals, interferences, or judicial proceedings which will directly affect or be directly affected by or have a bearing on the Board's decision in the pending appeal.

(3) Status of Claims

The statement of the status of claims contained in the brief is correct.

(4) Status of Amendments After Final

No amendment after final has been filed.

(5) Summary of Claimed Subject Matter

The summary of claimed subject matter contained in the brief is correct.

(6) Grounds of Rejection to be Reviewed on Appeal

The appellant's statement of the grounds of rejection to be reviewed on appeal is correct.

(7) Claims Appendix

The copy of the appealed claims contained in the Appendix to the brief is correct.

(8) Evidence Relied Upon

EP 0064263A2	DIETZ	11-1982
US PUB. 2004/0113979	TAKASHIMA ET AL.	06-2004
5,848,563	SAITO	12-1998

(9) Grounds of Rejection

The following ground(s) of rejection are applicable to the appealed claims:

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 9-12 and 16-20 have been rejected under 35 U.S.C. 103(a) as being unpatentable over Dietz (EP 64263A2) in view of Takashima et al. (US Pub. 2004/0113979), hereinafter Takashima.

Regarding claims 9, 10 and 17, Dietz teaches a punching device for making tapered holes capable of being use to punch holes on a ceramic substrate comprising: a receiving device 7, a die having a shaft 2, an operative portion having a first part 6 and a second cylindrical part 14, a stripper opening 12, a drive mechanism and a die guide 8. See Figs. 2-4.

Dietz teaches the second part 14 functioning as a guide but not as a punch.

Takashima teaches an operative 5 for making a tapered hole having a first part 5c and a second punching part 5b. See Figs. 1-3.

Therefore, it would have been obvious to one skilled in the art to incorporate the second punching part as taught by Takashima into the second part of Dietz to speed up the process of making a tapered hole since the tapered portion and the constant diameter portion are made in one step but not two steps as taught by Diet.

Regarding claim 11, the upper portion of the punching portion is unguided in the transverse direction in a ready state as shown in Fig. 1-3.

Regarding claim 12, the die guide device 8 having a bush (upper portion of element 5) with a passage 27 is best seen in Figs. 1-3.

Regarding claim 16, it appears that the length of the operative portion is greater than the stroke of the drive mechanism. See Fig. 1.

Regarding claims 18-20, Dietz teaches a tool for punching a sheet like substrate comprising:

- a lower tool part 7 having a flat receiving face for a substrate;

- an upper tool part;

- a die having a shaft 2, a graduated operative portion including a first part 6 and a second cylindrical part 14, a linear guide 8, a stripper bush 5 having a constant diameter stripper opening 12; and

- a drive mechanism 10. See Figs. 1-3.

Dietz teaches the second part 14 functioning as a guide but not as a punch.

Takashima teaches an operative 5 for making a tapered hole having a first part 5c and a second punching part 5b. See Figs. 1-3.

Therefore, it would have been obvious to one skilled in the art to incorporate the second punching part as taught by Takashima into the second part of Dietz to speed up the process of making a tapered hole since the tapered portion and the constant diameter portion are made in one step but not two steps as taught by Dietz.

3. Claims 1-3, 5-7 and 15 have been rejected under 35 U.S.C. 103(a) as being unpatentable over Dietz (EP 64263A2) in view of Saito (5,848,563) and Takashima et al. (US Pub. 2004/0113979), hereinafter Takashima.

Regarding claim 1, Dietz teaches a punching device capable of punching holes on a ceramic substrate comprising:

a receiving device 7, which has a substantially flat receiving face for a ceramic substrate 11, and in which a punched hole is embodied;
at least one die, which disposed above a punched hole and has a shaft 2 and an operative portion (6 and 14) that extends through a stripper opening 12, which is disposed in a stripper above the associated respective punched hole and extends to an outer face of the stripper facing the receiving face, and with the operative portion having a first part 6 with a diameter that is less than the diameter of the shaft by a multiple of the diameter of the first part and greater than the diameter of an associated punched hole, and the first part of the operative portion, at its lower end, has a punching cylindrical portion 14 whose diameter is somewhat less than the diameter of the punched hole and whose length is less than the length of the stripper opening;

a drive mechanism, which is connected in driving fashion to the die in order to move linearly by a defined stroke and in the process to move the punching portion into the punched hole and out of it; and

a die guide device 8, through which the shaft extends and which guides the die at its shaft. See Figs. 1-4.

Dietz is silent whether the receiving device having a plurality of punched holes. Saito teaches a receiving device having a plurality of punched holes for accommodating different punch sizes. See Figs. 2 and 3.

Therefore, it would have been obvious to one skilled in the art to provide a plurality of punched holes as taught by Saito in the receiving device of Dietz for accommodating different punch sizes.

Dietz teaches the second part 14 functioning as a guide but not as a punch.

Takashima teaches an operative 5 for making a tapered hole having a first part 5c and a second punching part 5b. See Figs. 1-3.

Therefore, it would have been obvious to one skilled in the art to incorporate the second punching part as taught by Takashima into the second part of Dietz to speed up the process of making a tapered hole since the tapered portion and the constant diameter portion are made in one step but not two steps as taught by Diet.

Regarding claim 2, the upper portion of the punching portion is unguided in the transverse direction in a ready state as shown in Fig. 1-3.

Regarding claim 3, the die guide device 8 having a bush (upper portion of element 5) with a passage 27 is best seen in Figs. 1-3.

Regarding claims 5 and 15, the modified punching assembly of Dietz teaches the invention substantially as claimed except for the length of the punching is equal to the length of the stroke of the drive. It the time the invention was made, choosing the length

of the punching stroke is well known in the art since the length of the punching stroke depends on the length of the punching portion, the thickness of the workpiece and the distance between the tip of the punching portion and the workpiece. Therefore, it would have been obvious to one skilled in the art to select a stroke length equal to the length of the punching portion since such practice is well known in the art.

Regarding claim 6, the stroke length is the distance between the extreme down end of the punching 14 and the bottom surface of workpiece 11. The operative portion length is sum of the lengths of the first part 6 and the second punching part 14. It appears that the length of the operative portion is greater than the stroke length of the drive mechanism. See Fig. 1.

Regarding claim 7, the punched hole and a slug conduit having a greater diameter than the punched hole are best seen in Figs. 1-3.

(10) Response to Argument

a- Rejection of claims 9-12 and 16-20 under 35 U.S.C 103 (a) in view of Dietz and Takashima.

The Applicant argues that Dietz, Takashima and the present invention are non-analogous arts because Dietz is directed to enlarging openings in metal sheets and cannot cut through a workpiece, Takashima is directed to forming liquid nozzles having enlarging opening in metal sheets and the present invention is directed to a punch for forming only cylindrical hole in a green ceramic sheet. This argument is not persuasive.

In response to applicant's argument that Dietz is nonanalogous art with respect to the present invention, it has been held that a prior art reference must either be in the field of

applicant's endeavor or, if not, then be reasonably pertinent to the particular problem with which the applicant was concerned, in order to be relied upon as a basis for rejection of the claimed invention. See *In re Oetiker*, 977 F.2d 1443, 24 USPQ2d 1443 (Fed. Cir. 1992). In this case, Dietz is pertinent to the particular problem with the Applicant was concerned which is a three-sectional punch (2, 6 and 14).

Dietz does not teach the section 14 of the three-sectional punch having a cutting edge to cut through the workpiece 11. In order to make an enlarged opening, the hole 16 of the workpiece 11 is pre-made first by a different punching tool and then fed to the three-sectional punch (2, 6 and 14).

Takashima teaches that in order to make the enlarged opening 2, the hole 3 (which is equivalent to the hole 16 in Dietz) and the enlarged opening 2 (which is equivalent to the enlarged opening in Dietz) are made simultaneously by providing a cutting edge at the end of the section (5b) of the punch 5. It is to be noted that the section (5b) in Takashima is equivalent to the section 14 in Dietz, and the sections (5a and 5c) in Takashima are equivalent to the sections (13 and 6) in Dietz.

Therefore, it would have been obvious to one skilled in the art provide a cutting edge to the section 14 in the Dietz's punch as taught by Takashima to speed up the process of making an enlarged hole since the steps of pre-making the hole 16 and enlarging the hole in Dietz are now made in one step but not two steps.

Since the improved punch of Dietz has a three-sectional punch and can cut a workpiece, the combination of Dietz and Takashima reads on claims 9 and 18.

The Applicant argues that the present invention makes only a cylindrical hole. This argument is not persuasive. Nowhere in the claim language excludes the enlarged portion of the cylindrical hole. Therefore, the combination of Dietz and Takashima reads on the claimed invention.

The Applicant argues that Dietz does not teach a flat receiving surface. This argument is not persuasive. Claims 9 and 10 call for “a receiving device, which has a **substantially flat** receiving surface”. According to the definition of the word “flat” in Dictionary.com, the word “flat” means having a surface that is without marked projections or depressions. The surface on the left side or right side of the hole 15 of the receiving device 7 in Dietz does not have any projection or depression. Therefore, the surface on the left side or right side of the hole 15 individually is considered a flat surface of the receiving device 7.

Even if both the left side surface and the right side surface are considered a flat surface of the receiving device 7, Dietz still reads on the term “**substantially flat** receiving surface”. The word “substantially” is a relative word. It has been held that “substantially” implies clearly that something less than exact correspondence is required. *Performed Line Products Co. v. Fanner Mfg. Co.* (DCNOhio) 124 USPQ 228. Therefore, a 0.5 degree inclined surface as shown in the Fig. 1 in Dietz would read on the term “substantially flat receiving face” because the word “substantially” allows a small deviation from a horizontal surface and a 0.5 degree angle is unnoticeable for a human eye.

The Applicant argues that because Office Communication dated 01/24/2007 states “element 14 of Dietz is not capable of being used as a punch. Therefore, the rejection of 10/18/2006 is withdrawn”, Dietz is not a proper prior art. This argument is not persuasive. The

Applicant does not completely describe the interview on 01/16/2007. Dietz was originally used in the rejection dated 10/18/2006 as a 102 (b) prior art. During the interview, the Examiner agreed that element 14 in Dietz may break a workpiece but not cut through. Therefore, the 102 (b) rejection based on Dietz was withdrawn and replaced with a 103 (a) rejection based on Dietz and Takashima.

The Applicant argues that Dietz does not teach a shaft because element 2 is called the punch holder in the English Abstract but not a shaft. This argument is not persuasive. Everyone acts as his or her own lexicographer to specifically name components of a tool. Therefore, element 2 in Dietz can be called by any name such as a punch holder or a shaft or portion 2 or element 2 or any other names. The important issue is that portions (2, 6 and 14) integrally form a three-sectional punch wherein portion 2 is guided by element 5.

The Applicant argues that since both portions 5a and 5b of the punch 5 in Takashima are tapered, the punch part is not cylindrical as required by claims 9 and 18. This argument is not persuasive. Portion 5a in Takashima is equivalent to portion 13 in Dietz; and portion 5b in Takashima is equivalent to portion 14 in Dietz. The tapered angle of portion 5b is designated as angle θ in Fig. 3. Takashima teaches a wide range values of the angle θ which includes a 0 degree angle as shown in Table 1. As the angle θ is 0 degree, portion 5b has a cylindrical shape. Therefore, Takashima teaches a cylindrical punch. Furthermore, it is supposed that Takashima did not teach a range of the angle θ , when Takashima's teaching is applied to Dietz, it would have been obvious to one skilled in the art to set the angle θ at 0 degree because there is no need for a second tapered portion in the Dietz's workpiece 11.

Regarding the Applicant argument with respect to claim 12 that there is no bush because element 2 is not a shaft. This argument is not persuasive. Everyone acts as his or her own lexicographer to specifically name components of a tool. Therefore, element 2 in Dietz can be called by any name such as a punch holder or a shaft or portion 2 or element 2 or any other names. The important issue is that portions (2, 6 and 14) integrally form a three-sectional punch wherein portion 2 is guided by element 5. Since portion 2 is a part of the three sectional punch and guided by element 5, element 5 is considered a bush.

b- The rejection of claims 1-3, 5-7 and 15 under 35 U.S.C 103 (a) in view of Dietz, Saito and Takashima.

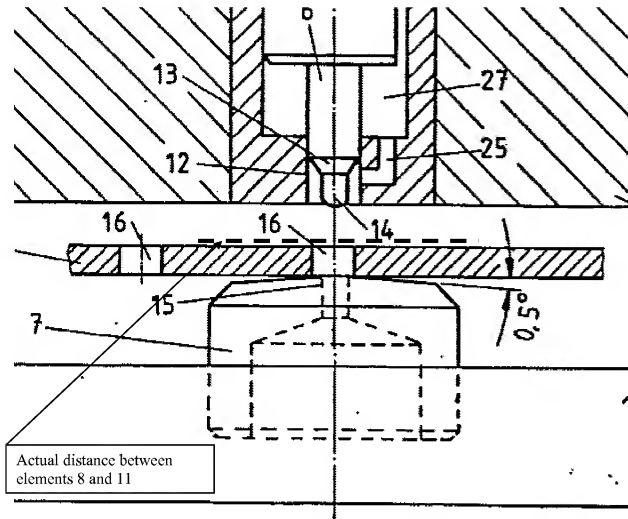
Regarding claim 1, the Applicant argues that since claim 1 contains all the limitations of claim 9 and Saito does not overcome deficiencies of the combination of Dietz and Takashima in claim 9, the rejection of claim 1 under 35 U.S.C 103 (a) in view of Dietz, Takashima and Saito should be withdrawn. This argument is not persuasive. There is no deficiency in the combination of Dietz and Takashima as discussed above and Saito teaches the limitation of the receiving device having a plurality of punch holes. Therefore, the combination of Dietz, Takashima and Saito teaches all the limitations in claim 1.

Regarding claim 3, the Applicant argues that claim 3 should be in the condition for allowance because claim 3 contains the same limitation as claim 12. This argument is not persuasive. Claim 12 is not allowable in view of Dietz and Takashima as discussed above. Therefore, claim 3 is not allowable.

Regarding claims 5 and 15, the Applicant argues that if the length of the punching portion 14 is equal the length of the stroke of the drive mechanism, then the tapered portion 13 of Dietz's

punch would not engage the workpiece 11 to create a tapered portion on the hole 16. This argument is not persuasive. As explained in the rejection of claims 5 and 15 that choosing the length of the punching stroke is within the knowledge of one skilled in the art since the length of the punching stroke depends on the length of the punching portion, the thickness of the workpiece and the distance between the tip of the punching portion and the workpiece. Fig. 1 in Dietz illustrates the punch assembly in general but does not teach the actual distance between the bottom surface of element 8 and the surface of the workpiece 11. The actual distance between the bottom surface of element 8 and the surface of the workpiece 11 may be just above the surface of the workpiece 11 as shown by a dash line. At that level, the punching portion can create a tapered portion on the hole 16 when the length of the stroke of the drive mechanism is equal the length of the punching portion.

Art Unit: 3724



(11) Related Proceeding(s) Appendix

No decision rendered by a court or the Board is identified by the examiner in the Related Appeals and Interferences section of this examiner's answer.

For the above reasons, it is believed that the rejections should be sustained.

Respectfully submitted,

/Phong H Nguyen/
Examiner, Art Unit 3724
July 2, 2009

Art Unit: 3724

Conferees:

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